

FOUR COUNTY LANDFILL STATE CLEANUP SITE DELONG, FULTON COUNTY, INDIANA

November 2005

Current Status and Activities

Trust Funds

The Four County Landfill Site OU2 Trust Fund (Trust) pays for operation and maintenance, and remedial actions. As of October 30, 2005, total assets in the Trust are \$549,134.45. No RCRA Closure Trust Fund monies have been spent.

Post-Closure Operation/Maintenance

Keramida Environmental performs operation and maintenance at the landfill. Leachate is pumped each week and shipped two or three times each month. The cap, gas vents, drainage systems and fence are inspected and maintained. Improvements to the site have been made, including:

- ✓ New leachate tank and secondary containment enclosure;
- ✓ Roof repairs;
- ✓ Smaller more energy-efficient office trailer; and
- ✓ Remote auto-dialing alarm for 24-hour leak detection. Monitors for other factors such as noise levels and power failures.

Monitoring *(See page 7)*

The Trust hired URS Corporation to perform well installation and monitoring pursuant to the Record of Decision (ROD) for Operable Unit 2 (OU2) of the site remedy. IDEM oversees the work.

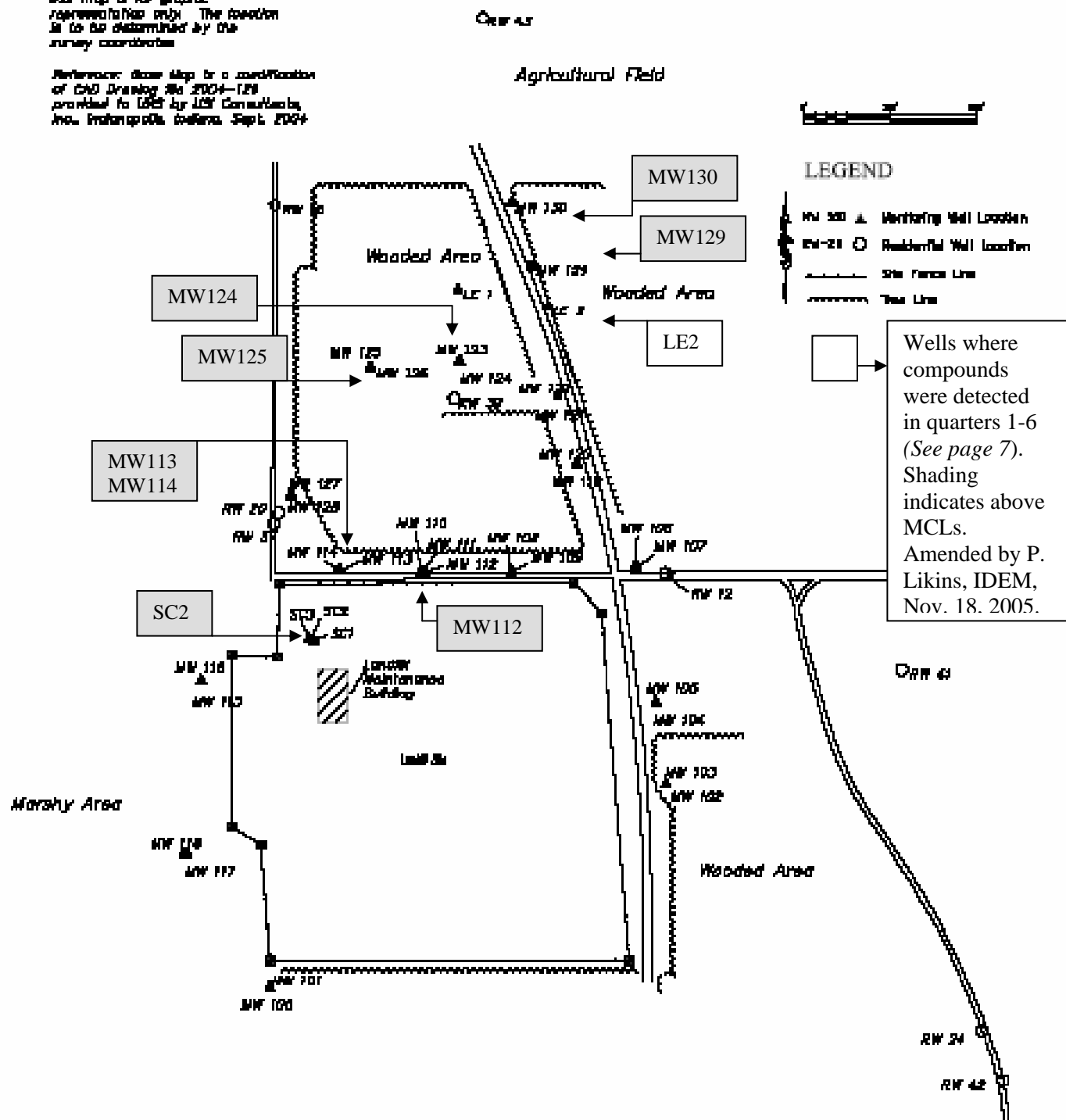
URS installed five new monitoring wells, and performed four quarterly sampling events.

Two additional wells will be installed. The first is to replace SC2, the Unit A monitoring well in the source area. The original well did not produce sufficient water to sample. The second is a sentry well northeast of MW130, necessary because Vinyl Chloride has been observed above Maximum Contaminant Levels (MCLs) in MW130 in two consecutive sampling events.

Monitoring wells and residential wells were sampled. Contamination above MCLs continues to be detected in one residential well. A whole house filter system is in place, quarterly sample results indicate the filter is removing the contaminants. Bacteria and arsenic were detected in post-filter samples collected by the Fulton County Hazardous Substance Committee (FCHSC). The filters and tanks were changed and the system was thoroughly sanitized and flushed. Subsequent sampling indicated successful removal of the bacteria. Continued thorough flushing of the system on a regular basis should prevent recurrence. We will sample again for bacteria when it is back on line this Spring.

Note: The location of RW-43 on this map is for graphic representation only. The location is to be determined by the survey coordinates.

Reference: Base Map is a modification of GND Drawing No. 2004-129 provided to USF by USF Consultants, Inc., Indianapolis, Indiana, Sept. 2004.



SITE MAP

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TITLE FOUR COUNTY LANDFILL, FULTON CO., IN



URS CORPORATION, INDIANAPOLIS, IN., 317-636-7469

DATE 9-30-04	PROJECT NO. 25625836
BY JHB/CRT	FIGURE NO. 1
CHK TJV	

Off-Site Groundwater (*Well Locations -See Figure 1*)

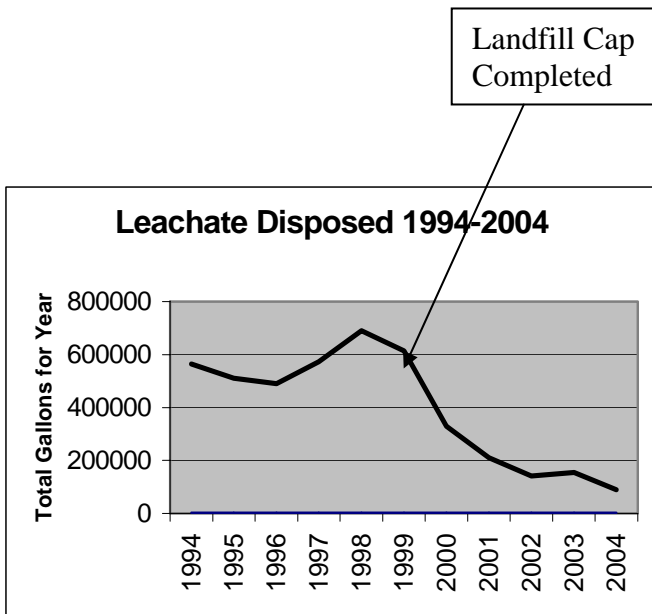
The remedy for OU2 includes institutional controls, and treatment of groundwater through monitored natural attenuation (MNA), and contingencies to:

- install additional monitoring wells if contaminants reach the most downgradient current wells (MW 129 and MW 130) at levels above MCLs;
- actively remediate groundwater (through destruction or removal of contaminants) if MNA is not achieving cleanup in a timely manner; and
- install filters on private wells if contaminants of concern are detected above MCLs.

Data is reviewed periodically to verify that natural attenuation will achieve cleanup goals (MCLs) as predicted, or to determine whether changes to the remedy are needed.

Leachate Volume Decreasing

Leachate is collected from sumps at each cell once a week, and stored in a central tank on the site. When the tank approaches 80% of capacity the leachate is picked up by Chemical Waste Management and sent for disposal. This occurs once or twice a month. The volume of leachate disposed is presented below:



Historical Leachate Disposal

Year	Collection Rate (gallons)
1994	564,700
1995	510,550
1996	490,350
1997	572,750
1998	690,594
1999	613,730
2000	329,478
2001	210,000
2002	140,800
2003	154,932
2004	88,796

Monthly Leachate Disposal Volume, 2004-2005

Mo/Year	Gals Disposed	Total/Year
Jan-04	5,500	
Feb-04	5300	
Mar-04	10046	
Apr-04	5700	
May-04	10600	
Jun-04	5100	
Jul-04	10850	
Aug-04	10500	
Sep-04	10400	
Oct-04	5100	
Nov-04	5000	
Dec-04	4700	88796

Mo/Year	Gals Disposed	Total/Year
Jan-05	4650	
Feb-05	5100	
Mar-05	10730	
Apr-05	5400	
May-05	10600	
Jun-05	5100	
Jul-05		
Aug-05	5300	
Sep-05	10300	
Oct -05	4900	

Upcoming Activities

The next monitoring event is scheduled for December 2005. The new well installation is not yet scheduled. After the third year of monitoring, URS will prepare a report that will evaluate the natural attenuation process. *(Check the calendar on the web site for dates!)*

History

Four County Landfill operated from 1972 until 1989, when owners filed for Chapter 11 bankruptcy. Pursuant to an August 13, 1993, Agreed Order (AO) the potentially responsible parties (PRPs) implemented remedial investigation (RI) and feasibility studies (FS) at the site.

In 1995 the site was divided into two Operable Units (OUs). Operable Unit One (OU1) addressed landfill cap installation, landfill gas venting, institutional controls, and source area perched groundwater adjacent to the west property boundary. OU1 RI/FS activities were completed in 1998. IDEM issued a Record of Decision (ROD) in July 1998. OU1 remedy construction was completed by January

2000 and long-term groundwater monitoring began.

OU2 addresses off-site groundwater. OU2 RI investigations were completed in 1999. IDEM approved the final Feasibility Study in January 2001 and signed the OU2 Record of Decision in July 2001.

Data indicate a groundwater contaminant plume extends northeast and downgradient. Volatile Organic Compounds (VOCs) were detected in monitoring wells at concentrations above background and above maximum contaminant levels (MCLs). Data suggests that natural attenuation processes are occurring.

Groundwater Monitoring Results - Summary of First Six Quarters, Unit B Wells in Micrograms per liter (ug/l)

Quarter	Compound	LE-2	MW113	MW125	SC-2	MCL *
1 (6/04)	Chloroform**	1.4	78		6.2	80**
	Cis-1,2-Dichloroethene	1.2				70
	Carbon Tetrachloride		460		4.6	5
	1,2 Dichloroethane		1.2	1.7	58	5
2 (9/04)	Chloroform**		69		2.4	80**
	Cis-1,2-Dichloroethene					70
	Carbon Tetrachloride		600			5
	1,2 Dichloroethane				250	5
	Vinyl Chloride				2.7	2
3 (12/04)	Chloroform**		54			80**
	Cis-1,2-Dichloroethene					70
	Carbon Tetrachloride		460			5
	1,2 Dichloroethane				360	5
	Vinyl Chloride				7.8	2
4 (3/05)	Chloroform**		520			80**
	Cis-1,2-Dichloroethene					70
	Carbon Tetrachloride					5
	1,2 Dichloroethane				450	5
	Vinyl Chloride				5.7	2
5 (6/05)	Chloroform**		340			80**
	Cis-1,2-Dichloroethene					70
	Carbon Tetrachloride					5
	1,2 Dichloroethane			33	520	5
	Vinyl Chloride				7.1	2
6 (9/05)	Chloroform**		57			80**
	Cis-1,2-Dichloroethene					70
	Carbon Tetrachloride		460			5
	1,2 Dichloroethane			24	590	5
	Vinyl Chloride				17	2

***MCL = Maximum Contaminant Level, National Primary Drinking Water Regulations**

**** This is actually the standard for Total Trihalomethanes. Chloroform is a Trihalomethane.**

Bold = exceeded the MCL

Compounds Detected in Unit C Wells in Micrograms per liter (ug/l)

Quarter	Compound	MW112	MW114	MW124	MW129	MW130	MCL
1 (6/04)	Benzene	2	19				5
	Chloroform**						80**
	Cis-1,2-Dichloroethene						70
	Carbon Tetrachloride						5
	1,2 Dichloroethane	96	510	1900			5
	Vinyl Chloride		2.5	11		2.3	2
2 (9/04)	Benzene		8.9				5
	Chloroform**						80**
	Cis-1,2-Dichloroethene						70
	Carbon Tetrachloride						5
	1,2 Dichloroethane	43	560	2100			5
	Vinyl Chloride		2	10			2
3 (12/04)	Benzene		16				5
	Chloroform**						80**
	Cis-1,2-Dichloroethene						70
	Carbon Tetrachloride						5
	1,2 Dichloroethane	49	360	1100			5
	Vinyl Chloride		3.1	8.7			2
4 (3/05)	Chloroform**						80**
	Cis-1,2-Dichloroethene						70
	Carbon Tetrachloride						5
	1,2 Dichloroethane	28	460	1700			5
	Vinyl Chloride			8		1.7	2
	Benzene		16				5
5 (6/05)	Chloroform**						80**
	Cis-1,2-Dichloroethene						70
	Carbon Tetrachloride						5
	1,2 Dichloroethane	36	220	1300			5
	Vinyl Chloride			6.6	2	2.2	2
	Benzene		13				5
6 (9/05)	Chloroform**						80**
	Cis-1,2-Dichloroethene						70
	Carbon Tetrachloride						5
	1,2 Dichloroethane	38	220	620		3.4	5
	Vinyl Chloride		1.9	4.1	.6	2.4	2
	Benzene		14				5

***MCL = Maximum Contaminant Level, National Primary Drinking Water Regulations**

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Bold = exceeded MCL